

We Claim

1. A kit for carrying out a nucleic acid amplification reaction, wherein said kit comprises a pair of primers, wherein a least one primer of said pair contains a modified nucleotide within the three 3' terminal nucleotide positions; wherein said modified nucleotide is selected from the group consisting of 2'-O-methyl nucleotides, 2'-fluoro-nucleotides, 2'-amino nucleotides, and arabinose nucleotides.
2. A kit of claim 1, wherein said modified nucleotide is a 2'-O-methyl nucleotide.
3. A kit of claim 1, wherein said modified nucleotide is a 2'-fluoro-nucleotide.
4. A kit of claim 1, wherein said modified nucleotide is a 2'-amino nucleotide.
5. A kit of claim 1, wherein said modified nucleotide is an arabinose nucleotide.
- 20 6. The kit of claim 2, wherein said modified nucleotide is at the 3' terminal position.
7. The kit of claim 3, wherein said modified nucleotide is at the 3' terminal position.
- 25 8. The kit of claim 4, wherein said modified nucleotide is at the 3' terminal position.
9. The kit of claim 5, wherein said modified nucleotide is at the 3' terminal position.

10. A kit of claim 1, wherein each primer of said pair of primers
independently contains a modified nucleotide within the three 3' terminal nucleotide
positions; wherein said modified nucleotide is selected from the group consisting of
2'-O-methyl nucleotides, 2'-fluoro-nucleotides, 2'-amino nucleotides, and arabinose
5 nucleotides.

11. A method for amplifying a nucleic acid target sequence, wherein said
method comprises carrying out a primer-based amplification reaction in a reaction
mixture comprising a pair of primers, wherein a least one primer of said pair contains
10 a modified nucleotide within the three 3' terminal nucleotide positions; wherein said
modified nucleotide is selected from the group consisting of 2'-O-methyl nucleotides,
2'-fluoro-nucleotides, 2'-amino nucleotides, and arabinose nucleotides.

12. The method of claim 11, wherein said modified nucleotide is a 2'-O-
15 methyl nucleotide.

13. The method of claim 11, wherein said modified nucleotide is a 2'-
fluoro-nucleotide.

20 14. The method of claim 11, wherein said modified nucleotide is a 2'-
amino nucleotide.

15. The method of claim 11, wherein said modified nucleotide is an
arabinose nucleotide.

25 16. The method of claim 12, wherein said modified nucleotide is at the 3'
terminal position.

17. The method of claim 13, wherein said modified nucleotide is at the 3'
30 terminal position.

18. The method claim 14, wherein said modified nucleotide is at the 3' terminal position.

19. The method claim 15, wherein said modified nucleotide is at the 3' 5 terminal position.

20. A method of claim 11, wherein each primer of said pair of primers independently contains a modified nucleotide within the three 3' terminal nucleotide positions; wherein said modified nucleotide is selected from the group consisting of 10 2'-O-methyl nucleotides, 2'-fluoro-nucleotides, 2'-amino nucleotides, and arabinose nucleotides.